



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,003	09/16/2003	Jerry S. Brown	84658	3910

23501 7590 11/04/2005

NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION
OFFICE OF COUNSEL, CODE XDC1
17320 DAHLGREN ROAD
DAHLGREN, VA 22448-5110

EXAMINER

ANTHONY, JOSEPH DAVID

ART UNIT PAPER NUMBER

1714

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,003

Applicant(s)

BROWN ET AL.

Examiner

Joseph D. Anthony

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-18 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-18 and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baugh et al. U.S. Patent Number 6,656,919 in view of Brown U.S. Patent Number 6,369,288 and further in view of Roesler et al. U.S. Patent Number 5,462,692 (for claims 17, 21-22, and 30).

Baugh et al teach a method for the disinfection and sterilization of material and surfaces contaminated with one or more members selected from the group consisting of bacteria and bacterial spores (e.g. chemical and biological warfare agent decontaminating solutions are taught), comprising the steps of: (a) providing a biocidal fluid containing a mixture of effective amounts of a germinant and a germicide; and (b) contacting the material and surfaces contaminated with one or more members selected from the group consisting of bacteria and bacterial spores, with the biocidal fluid of step (a) for a time sufficient for disinfecting and sterilizing said material. The invention also provides a sterilizing composition suitable for killing and rendering spores lifeless comprising: (a) an

effective amount of a germinating agent; (b) an effective amount of a germicide, see the abstract and column 1, lines 38-63. Disclosed effective chemical germinants are dipicolinic acid, glucose, adenine, L-alanine, calcium dipicolinate and various inorganic anions such as but not limited to chloride and borate and cations such as but not limited to Na.sup.+, Ca.sup.++, and Mg.sup.++ as well as mixtures thereof., see column 7, lines 24-38 and column 8, lines 13-22.

Disclosed effective germicides can be selected from oxidizing agents which can be either inorganic or organic oxidizing such as hydrogen peroxide and benzoyl peroxide, see column 8, lines 26-37. Baugh et al's compositions advantageous also contain surfactants which are preferably non-ionic surfactant. Amine oxides are such disclosed non-ionic surfactants, see column 10, line 60 to column 11, line 11. Baugh et al differs from applicant's claimed invention in the following ways: 1) there is no direct disclosure to a composition in the form of a microemulsion, and 2) there is no direct disclosure to applicant's preferred oxidizing agent of peracetyl borate of claim 17.

Brown teaches a method for using a chemical and biological warfare agent decontaminating solution having a peroxygen compound and bleach activator. The peroxygen compound and bleach activator are mixed in a surfactant system to generate a peroxycarboxylic acid in-situ to detoxify warfare agents, see the abstract. The surfactant system is preferably in the form of a microemulsion comprising one or more surfactants, water and hydrocarbon compound. Buffers, and other known microemulsion additives may be added, as

Art Unit: 1714

desired. Surfactants used within the microemulsion preferably include two amine oxide surfactants. The amine oxide surfactants may include, for example, any N-alkyldimethylamine or N-dialkylmethylamine oxide, having C.sub.10, C.sub.12, C.sub.14, C.sub.16 alkyls or mixtures of these. Exemplary surfactants include didecyl methylamine oxide manufactured by Albemarle Chemical of Baton Rouge, La. and sold under the tradename "Damox 1010" (76%), and decyl dimethylamine oxide manufactured by Lonza Chemical of Fair Lawn, N.J., and sold under the tradename "Barlox 10S" (30%). Preferred surfactant systems include amine oxides.

Roesler et al teach stable, solid acetyl peroxyborate compounds which are active oxygen-containing compounds derived from acetic acid and boron-oxygen compounds. The compounds of the invention have a peracetic acid content which can be liberated instantly and directly in water with only minor formation of hydrogen peroxide. The acetyl peroxyborates of the invention are useful in washing, bleaching and cleaning agent and disinfectant applications and as oxidizing agents in organic synthesis.

It would have been obvious to one having ordinary skill in the art to use Brown's disclosure to microemulsion containing amine-oxide surfactant blends as highly effective surfactant systems for germicidal oxidizing agents used in chemical and biological warfare agent decontaminating solutions as strong motivation to actually use such microemulsion systems in the chemical and biological warfare agent decontaminating solutions as disclosed by Baugh et al..

Likewise it would have been obvious to one having ordinary skill in the art to use Roesler et al teaching to the big advantageous of using solid acetyl peroxyborate compounds instead of known peracid/hydrogen peroxide aqueous solutions because solid acetyl peroxyborate compounds only release minor amounts of hydrogen peroxide which can cause off gassing problems among others, as the motivation to actually use solid acetyl peroxyborate as the oxidizing agent in Baugh et al's invention.

Response to Arguments

3. Applicant's arguments filed 03/02/2005 with the amendment have been fully considered but are not persuasive to put the application in condition for allowance for the reasons set forth above. Additional examiner's comments are found next.

Applicant's argues that: "There is no teaching within Baugh or Brown that the system disclosed in Brown would be suitable with the process claimed in Baugh.". Although there is no explicit statement in Brown to use his microemulsion surfactant systems in Baugh et al. process, there is strong motivation for one having ordinary skill in the art to do just that since: 1) Baugh et al. and Brown are directed towards the same goal or purpose (i.e. the disinfecting and sterilization of contaminated surfaces), and 2) both use oxidizing agents in combination with surfactants. One having ordinary skill in the art would thus have amply motivation to use Brown's microemulsion surfactant system in Baugh et al. composition for the benefits that Brown discloses that such microemulsion provide disinfection and sterilization compositions.

Likewise, one having ordinary skill in the art would have ample motivation to use Roesler et al's solid acetyl peroxyborate oxidizer in the sterilization and disinfection composition and process taught by Baugh et al. since Baugh et al. and Roesler et al are both directed towards the same goal or purpose (e.g. the disinfecting and sterilization of contaminated surfaces). Finally, there is no reason at all why one having ordinary skill would expect, as applicant argues, that Roesler et al's acetyl peroxyborate would somehow be incompatible with Baugh et al's germinants. The germinants disclosed by Baugh et al. are themselves very well known in the art to be used in combination with all sorts of oxidizing agents either inorganic or organic in nature. As such, one having ordinary skill in the art would have ample motivation to use such germinants in combination with organic peracids, such as acetyl peroxyborate, outside of an explicit disclosure/suggestion against such a combination. No such explicit disclosure/suggestion against such a combination is found in either Baugh et al. or Roesler et al..

Conclusion

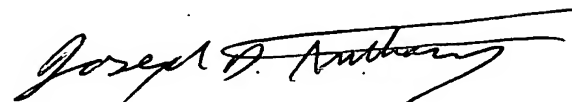
4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1714

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

10/11/05